CHAP. V.

Of their HOUSHOLD FURNITURE, *and other neceſſary Utenſils.*

ALL the *Kamtſchatka* houſhold furniture conſiſts in diſhes, bowls, troughs, and cans made of birch bark. As theſe people have not the uſe of metals, we think it is proper to explain, how without the uſe of inſtruments of iron, they are able to perform their houſhold work, ſuch as building, ſawing, making of fire, dreſſing their victuals; being all the while ſo ignorant that they can ſcarcely count ten. How powerfully does neceſſity work upon the moſt inſenſible minds!

Before the arrival of the *Ruſſians* the *Kamtſchadales* uſed ſtones and bones inſtead of metals, out of which they made hatchets, ſpears, arrows, needles, and lances. Their hatchets were made of the bones of whales and rein-deer, and ſometimes of agate or flint ſtones. They were ſhaped in form of a wedge, and faſtened to crooked handles. With theſe they hollowed out their canoes, bowls, and troughs; but with ſo much expence of trouble and time, that a canoe would be three years in making, and a large bowl one year. For this reaſon, a large canoe or trough was in as great eſteem among them as a veſſel of the moſt precious metal and fineſt workmanſhip is with us; and the village which was in poſſeſſion of ſuch valued themſelves extremely upon it, eſpecially if they were maſters of a bowl which would ſerve for more than one gueſt. Theſe bowls they dreſs their victuals in, and heat their broth by throwing red-hot ſtones into it.

Their knives were made of a greeniſh mountain chryſtal, ſharp-pointed, and ſhaped like a lancet, which was ſtuck into a

l: Krasheninnikov N-5 (1736-40) 1764 Kamchadal

442 a wooden handle. Of ſuch chryſtals were made likewiſe their
294 arrows, ſpears, and launcets, with which they continue ſtill to
— let blood. Their ſewing needles they made of the bones of ſables, with which they not only ſewed their cloaths together, but made alſo very curious embroidery.

177 In order to kindle fire they have a board of dry wood with
372 round holes in the ſides of it, and a ſmall round ſtick; this they
— rub in a hole 'till it takes fire, and inſtead of tinder they uſe dry graſs beat ſoft. Theſe inſtruments are held in ſuch eſteem by the *Kamtſchadales* that they are never without them, and they value them more than our ſteels and flints: but they are exceſ-
442 ſively fond of other iron inſtruments, ſuch as hatchets, knives,
177 or needles; nay, at the firſt arrival of the *Ruſſians* a piece of
325 broken iron was looked upon as a great preſent, and even yet
— they receive it with thankfulneſs, knowing how to make uſe of the leaſt fragment either to point their arrows or make darts, which they do by hammering it out cold between two ſtones. All the ſavage inhabitants of theſe parts are particularly fond of iron, and know how to manage it very
439 curiouſly. As ſome of them delight in war, the *Ruſſian*
325 merchants are forbid to ſell them any warlike inſtruments; but
415 they are ingenious enough to make ſpears and arrows out of the
R. iron pots and kettles which they buy; and they are ſo dextrous
177 when the eye of a needle breaks as to make a new eye, which
441 they will repeat until nothing remains but the point. Even at the time when I was there it was only the better ſort and thoſe that lived near to the *Ruſſians* that made uſe of iron or copper veſſels, the reſt ſtill preferring their wooden diſhes.

325 It is ſaid, that the *Kamtſchadales* knew the uſe of iron even
439 before the arrival of the *Ruſſians*; that they received it from the
177 *Japaneſe*, who came to the *Kuriliſki* iſlands, and once to the mouth of the river *Kamtſchatka*; and that the name which the *Kamtſchadales* give the *Japaneſe* of *Shiſman* comes from *ſhiſh*,

CHAPTER VIII

POTTERY

METHODS OF COOKING FOOD OF THE ANCIENT KAMCHADAL

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At present the Kamchadal do not make clay pots. Until recently the opinion was widespread that they were not familiar with pottery, even in former times. Steller[1] and Krasheninnikoff,[2] in speaking of the ancient Kamchadal method of cooking food, mention only boiling in wooden troughs by means of red-hot stones, and there is nowhere in the writings of these authors a reference to clay vessels. Schrenk[3] considers the absence of pottery among the Kamchadal as proved. He contends also that pottery was unknown to any of the so-called Palæ-Asiatic peoples, with the exception of the Eskimo, whom he classes among them.

We wish to clear up the contradiction between the statements of some travelers, that the old Kamchadal cooked food in wooden troughs by means of red-hot stones and our archæological finds of clay vessels.

Both means of cooking food, by boiling it in wooden troughs and in clay pots, were used. Pottery vessels were used in the permanent winter dwellings, while wooden troughs were used when traveling in winter or moving to fishing places in summer. Clay pots, being light breakable vessels, were not carried along, either by dog-teams or in canoes.

We must admit that Krasheninnikoff and Steller had no chance to observe cooking in clay pots, or to see the Kamchadal pottery, although that may appear improbable, when considering their long stay in Kamchatka and their ample and interesting description of the life of the Kamchadal in all other respects. As to the cooking in wooden troughs, both Krasheninnikoff (I, p. 362; II, pp. 38, 45, 46 and 74) and Steller (p. 322 and App., p. 36) describe in detail how fish and meat of land and sea animals were cooked with edible roots and other vegetables.

R. Torii says that the Sakhalin Ainos made clay pots and at the same time used dug-out trunks for boiling meat and fish in water heated by red-hot stones. He relates the same concerning the Kurilian Ainos. While moving for fishing and hunting purposes from one island to another and not being able to carry with them breakable pottery, they cooked their meals by means of hot stones put in wooden troughs filled with water.[4]

[1] G. W. Steller, *Beschreibung von dem Lande Kamtschatka*, Frankfurt und Leipzig, 1774.

[2] S. P. Krasheninnikoff, *Description of the Land Kamchatka*, vols. I–II, 1819, St. Petersburg (in Russian).

[3] Leopold von Schrenk, *Reisen und Forschungen im Amur-Lande*, Band II, St. Petersburg, 1867, p. 139.

[4] See R. Torii, *Études Archéologiques et Ethnologiques: Les Aino des Iles Kouriles*, Journal College of Science Imperial University of Tokyo, vol. XLII, Tokyo, 1919–1921 p. 194.

The method of boiling water by means of red-hot stones is known among many peoples—the Eskimo, Polynesians, New Zealanders and others. The Kamchadal of central Kamchatka, says Bogoras (*The Chukchee*, p. 194), even now extract fish-oil by trying out the fish in a dug-out with heated stones. The same was told by Dittmar of the Kamchadal of the village Kluchi on the Kamchatka River (Carl von Dittmar, *Reisen und Aufenthalt in Kamtschatka in den Jahren 1851–1855*, p. 326, St. Petersburg, 1890, Part I). In the work of Dr. Aurel Krause (*Die Tlinkit Indianer, Ergebnisse einer Reise nach der Nordwestküste von Amerika und der Beringstrasse*, Jena, 1885, p. 178) there is an illustration showing how the Tlinkit get fish-oil from the salmon *Thaleichtys pacificus* by boiling it in a dug-out heated with stones. In northern European Russia and Siberia beer is prepared by the same method (see L. S. Berg, *The Discovery of Kamchatka and Bering's Expeditions*, Leningrad and Moscow, 1924, p. 12, in Russian).

000 that they had been lamps, and not cooking pots; but this opinion may be offset by the shape, size and, especially, the depth of the pots found.[1]

323 Witsen, based on information received from cossacks, stated that the Kamchadal used clay vessels.[2] The Cossack Atlassov,[3] mentioned above, says in his 415 report to the Government that the Kamchadal made pottery in his time.[4]

We see that before our excavations there were some indications as to the former pottery-making of the Kamchadal, but these were somewhat vague. Our diggings furnished more definite data concerning the Kamchadal types and methods of manufacturing pottery. We discovered two kinds of coarse clay vessels—with handles inside and with holes near the upper rim of the pots—and a kind of more elaborate ceramics with outer ornamental designs.

POTS OR PANS WITH EARS INSIDE

323 Fragments of pottery with handles inside were found by the writer in many 172 diggings of the central and southern parts of Kamchatka, and he was fortunate to discover one complete pot in a pit on the shores of the Nalacheva Lake and another on the Nalacheva Cape (see Plate 17, figs. 1, 3). We may say that not only the wheel was unknown to the Kamchadal manufacturer of this rude kind of pottery, but neither the coil method nor the basket modeling process was applied by him, though there remained some impressions of basketry on the outer side. It seems that the vessels were worked out from single blocks of clay and beaten into shape. It is the crudest pottery. The dimensions of figure 1 have been given before (see p. 48). The thickness is about a third of an inch. It is difficult to say whether this kind of pottery was especially burnt before being used or was baked by the fire while cooking. The fact that these vessels remained intact after having been long buried under the ground proves that they were solidly made and water-tight. Being smeared with fat and blackened by smoke, they received a coating against water, which may be compared with the glaze of higher types of pottery. To make the clay more resistent it was tempered with sand, gravel and the hair of sables' tails.[5] The Cossack Atlassov, when presenting to the Government the tribute of the Kamchadal in sable-skins, delivered many of them without tails. In apologizing he said that the Kamchadal make boas of sables' tails and used the hair for tempering clay.

415 There is no doubt that the inside ears were intended for suspending the pot 172 over the fire, as they afforded better protection to the suspending cord or thong than those outside the pan.

[1] Carl von Dittmar, *Reisen und Aufenthalt in Kamchatka in den Jahren 1851–1853*, St. Petersburg, Part I, p. 212. Dittmar gives the following measurements of a pot: upper diameter, 12 cm.; lower diameter, 10 cm.; maximum width, 14 cm.; depth, 10 cm. This vessel, therefore, had an aperture smaller in diameter than the middle part, and its bottom was still smaller than the aperture. Clay lamps are of a quite different shape, as shown by Bogoras, Nelson and other explorers of the northern regions.

[2] Nicolaas Witsen, *Noord en Oost Tartarye*, Amsterdam, vols. I–II, 2d ed., 1705, p. 673 (1st ed., 1692).

[3] See before p. 1.

[4] See G. Spassky, *Vladimir Atlasov the Conqueror of Kamchatka*, Jour. Imperial Russian Geographical Society, 1838, vol. XLIV, p. 164 (in Russian).

[5] Munro (*Prehistoric Japan*, p. 196) supposes that grass was mixed by the Kurilians in their primitive pottery, the clay of which became black, due to the carbonisation of the grass. R. Torii (*Les Ainos des Iles Kouriles*, p. 186), referring to information received from old Kurilian people, says that the ancient Kurilian Ainos tempered clay for pottery with sand and minced grass called "nokkanki."

1. [The end of the 17th Century -- Analysis]

5: Jochelson A-5 (1910-11) 1928 Kamchadal

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We have referred to Mr. Torii who found that the Kurilian Ainos used this kind of pottery. Mr. Mamiya Rinzo displayed a clay pan with handles inside from Yezo.[1] Mr. S. Susuki has also shown a clay pan of rough make with the handles inside from Sakhalin Island.

The question arises as to where we may look for the place of origin of this kind of pottery: in Kamchatka or Japan. Pottery in general needs a sedentary life for its proper development. The same may be said of the primitive pottery

Fragments of ancient Kurilian pottery.

in question. It could develop among the original settlers of Japan, the Ainos, and spread to the north, to Sakhalin, Kurilian Islands and Kamchatka. The sedentary or semi-sedentary fishers of Kamchatka might have adopted it from the Kurilians.

According to Mr. N. Tanaka, "within the last 20 years earthenware pans with handles inside were in use in Musashi and the island of Hachijo."[2]

Illustrations of the following fragments of ancient Kurilian pottery are taken from R. Torii's work (*Les Ainou des Iles Kouriles*, Plate XXXIII). Figures 75 and 76 show fragments of Kurilian pottery with inside ears. Figure 77 shows a

[1] The Japanese investigator Mamiya Rinzo spent the years 1804–1817 in Sakhalin.
[2] See Munro, *Prehistoric Japan*, Yokohama, 1911, p. 166. Cited from Tokyo Jinruigaku (Tokyo Anthropological Magazine), No. 16, 1887.

5: Jochelson A-5 (1910-11) 1928 Kamchadal

171 fragment of the lower part and the flat bottom of a clay vessel. Figure 78 represents a fragment of a clay vessel with a drilled hole for tying it by a cord to the hole
● 415 of another broken piece of the vessel. In figure 79, Torii gives an outline of a clay
172 pan with two ears inside. It is not clear whether there was a third ear, like that in the Kamchadal clay pots.

Figure 80 shows a fragment of ancient Aino pottery with an ear inside, found, according to Torii, in Sapporo on Yeso. It is shown one-third natural size. Figure 81 represents a clay vessel of ancient pottery with ears inside found in Esashi, Yeso; two-ninths natural size. This drawing is taken from an article by the late Professor S. Tsuboi in the Bulletin of the Tokyo Anthropological Society (vol. IV, No. 37, March 1889, p. 227). This vessel has only two inside ears. A rough sketch of a Sakhalin clay pot with ears inside is shown by Mr. Susuki in his work, *Karafuto Nikki*.[1] Like figure 81 this vessel also has only two ears.

82 83

Iron cooking vessels.

According to Torii (*Les Ainou des Iles Kouriles*, p. 279) fragments of pottery with ears inside the pots were found also in Japan, i. e., on the Nippon Island. Thus we see that the manufacture of this kind of primitive pottery was not limited to the Kurilian Islands and Sakhalin only. It spread all over Japan—over localities formerly inhabited by Ainos. But from nowhere, except in Kamchatka, were clay vessels with three inside handles reported.

Figure 82 shows a sketch of an iron pan from Sakhalin with ears inside the vessel. The illustration was published by Torii (*Les Ainou des Iles Kouriles*, p. 195). Figure 83 shows a drawing of an iron pot with loops on the inside surface. It is from a photograph of a piece in the Museum of the Imperial University in Tokyo, kindly forwarded to me by Professor Akira Matsumura. The cord is covered with birch bark in order to protect it from the heat of the boiling pot. It must be noted that the iron pots (figs. 82–83) have only two inside ears like the

[1] Susuki traveled in Karafuto (Sakhalin) Island in 1853. See *Karafuto Nikki*, Shigehisa Susuki, With Notes and Addenda by Takeshiro Matsuura, 2 vols., Tokyo, 1860.

5: Jochelson A-5 (1910-11) 1928 Kamchadal

Aino clay pots referred to above.[1] Such iron pots, says Munro, have been found in the pits of Hokkaido (Yezo) with wares of wood and implements of stone.[2] The Yezo Ainos, he says in another place, have long been accustomed to use iron pots from Japan or Siberia, some of which had handles inside, and it is reasonable to suppose that the clay pan with handles inside was copied from the useful iron model. I wish to add to this statement that nowhere in Siberia have I seen iron pots with handles inside, and there is no doubt that such iron pots were made in Japan and copied from the more primitive model, the clay pot, and not the reverse.[3]

Plate 17, figure 2, shows the upper part of a clay pot, the three fragments of which I cemented together and which had no handles. The height of the pot and the shape of the bottom, whether flat or conical, are unknown. As this pot has no handles or holes for suspension, one may suppose that the bottom was flat, intended to rest amid the burning logs and in the ashes of the primitive hearth, which was the ground and sometimes had an enclosure of stones to confine the fire. This pot looks somewhat smoother than the pans with handles inside and its rim is decorated with four parallel lines. It was probably deeper than the shallow pans, but it was made of the same coarse clay and not subjected to a special burning. The decorative lines were made when the clay was still wet, by a bone instrument like that shown on Plate 16, figure 10. Fragments of upper parts of clay pots with decorative parallel lines are shown on Plate 18, figure 2.

A DIFFERENT KIND OF POTTERY TO THE NORTH OF KAMCHATKA

Fragments of a different kind of clay pots were found by the author in the excavations of northern Kamchatka. Plate 19, figure 1, shows pottery fragments of the Kulki site and figure 2 of the Kavran site. The majority of these fragments seems to be from small vessels, the clay to be burnt, and the pots more decorated than those of southern Kamchatka. In some cases impressions of baskets or ropes may be seen, but most of the decorations, consisting of dots, lines, zigzags and other figures, were made by the hand by means of bone or wooden implements. Holes were found in many of the pottery fragments. The holes were made differently for particular purposes; those near the upper rim were made by an awl, when the clay was still wet, and intended to serve as loops for cords or thongs for suspension over the hearth. Other holes were made by a drill in order to mend broken pieces by tying them with sinew threads and smearing over the broken lines with clay. On Plate 19, figure 1, are shown both kinds of holes on two fragments. Going farther to the north we may point to a restored clay pot, from fragments found by the writer while digging an old Koryak site. The mouth of the pot had a diameter of about 27 cm., its height must have been approximately 27 cm., and the walls were 4 to 8 mm. thick. All potsherds found in the Koryak[4] territory are quite thin, so that their manufacture had little in

[1] It must be noted that the iron pot in figure 92 has, besides inside loops, three feet evidently for putting the vessel on a table or bottom for eating.

[2] Cited from Professor Torikai, Tokyo Anthropological Magazine, No. 16, June 1887.

[3] The Siberian iron and copper pots and kettles, manufactured chiefly in European Russia, have handles outside the vessels or on their upper rims.

[4] See the author's work, *The Koryak*, p. 645, fig. 165.

5: Jochelson A-5 (1910-11) 1928 Kamchadal

common with that of the thick and clumsy clay lamps and unbaked quadrangular kettles of the modern Chukchee and Asiatic Eskimo. The potsherds found in the Koryak excavations were black from soot and fat, and were evidently well baked, as they remained strong and hard, although they had been lying in the wet soil. All these potsherds were made of coarse clay containing fine gravel and pieces of quartz. The Koryak pot referred to above was molded by hand, and all over the outside are the impressions of closely woven, twined basketry. Evidently this impression was made by taking a piece of twined fabric in one hand and pressing it against the moist pot, the twined woof being placed so that the lines ran at right angles to the rim. The pot had a conical bottom and it is possible that it was intended to be supported by stones or to rest in a cavity of the hearth.[1]

Proceeding farther to the north we find among the Chukchee and the Asiatic Eskimo a pottery somewhat like that of the Alaskan Eskimo. Their elongated rectangular form is adapted to the shape of the lamp over which it is hung in cooking. It may be that this form of pottery came to Alaska from Asia. Some clay kettles of the same shape from St. Lawrence Island are among the collections of the U. S. National Museum of Washington.

[1] We have seen before (p. 36) that neolithic sites in the Baikal Region yielded clay pots with a conical bottom which were supported on the hearth by stones. Professor Petri contends that pottery with flat bottoms appeared chiefly in the iron age. The pot with a conical bottom found by the author in a site of the Koryak sedentary may support Petri's supposition. On the other hand a fragment of a clay pot with a flat bottom from a neolithic site of the Ainos is shown in figure 77.

[P. 105]

JOCHELSON

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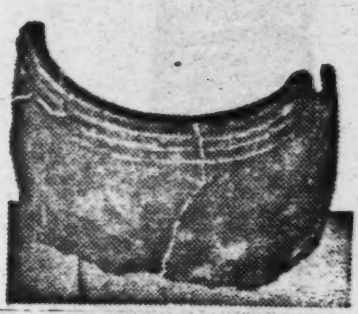
PLATE 22



1. Clay pot with ears inside; discovered by the author in a pit of an old Kamchadal dwelling on the shore of Nalacheva Lake. The pot was split in two places, but complete, and later cemented by the author. The splitting may be regarded as a result of freezing and thawing of the soil. It was discovered at the depth of 3 feet 4 inches. Digging was done with great care. When a piece of the rim appeared, the spade was discarded and the earth from and around the pot was taken out by the hands. For the dimensions of the pot see p. 48.
2. Similar clay pot of smaller size, discovered in a pit on the Nalacheva Cape.
3. Portion of upper part of a clay pot without handles inside. It consists of three fragments cemented together by the author. No other pieces of the same pot were discovered and we do not know whether its bottom was flat or rounded. Outer parallel lines made by a comb-like implement are similar to inner parallel lines of pots with handles inside.

7:Lesseps T-3 (1787-88)1790 Kamchadal

353 corner of the apartment * a wretched image of ſome ſaint, ſhining with greaſe and blackened with ſmoke. It is before theſe images that the Kamtſchadales bow themſelves, and offer their prayers. The reſt of the furniture conſiſts of ſeats and ſome veſſels, made either of wood, or the bark of trees. Their cookery utenſils are of copper or iron; but they are all diſguſtingly filthy. The remains of their dried fiſh are ſcattered about the room, and the women or the children are continually broiling pieces of ſalmon ſkin, which is one of their favourite meats.

352 415 356 511

171 291 854 The ſingularity of the children's dreſs particularly attracted my attention; it is ſaid exactly to reſemble that of the Koriacs. It conſiſts of only one garment, that is, of a

* This nook is in a manner diſtinct from the room, and is leſs filthy, becauſe it is leſs frequented. It is a place of honour ſet apart for ſtrangers.

ſingle

G 323 171 A 323 [177] /449 cont./ Mamia Rinsô (4), to be sure, reports about the Ainu of southern Sakhalin that they make earthenware vessels, and, to be sure, of two kinds, the one of about six to seven inches in diameter with ears on two sides, tojes'ju, i.e., earthen pans, the other called kamui'sju, i.e., divine pans, but one cannot fail to recognize the recent Japanese origin of this art. In the seventeenth century, when A [175] [172] [415] Vries and his companions discovered Jesso and the nearby Kurile Islands, they saw the inhabitants of them eating from lacquered wooden bowls /450/ and quadrangular troughs (1), and just such

A [113]

1. Siebold, Aardr. en volkenkund. toelicht. tot de ontdekk. van Vries /Geographical and Ethnographical Explanations from the Discoveries by Vries/, P. 108.

bowls, but no earthenware vessels, are among the articles that Poljakof found, besides skulls and bones, in old Ainu graves on Sakhalin and presented to our museum. Concerning the ancient G 321 171 Kamchadal, one finds, to be sure, in the report of the Cossack Atlassof published by Witsen (2), the information that they

K 323 ●415 [113]

2. Noord en Oost Tartarye, ed. of 1705, p. 673.

manufacture for their own use earthenware and wooden vessels, but the former are more than questionable. Steller and K [172] Krascheninnikof saw only wooden vessels among them, and Ditmar (3), while digging on the sites where their yurts had once

K [113]

3. "Reisen und Aufenthalt in Kamschatka in den Jahren 1851-1855 /Travels and Residence in Kamchatka in 1851-1855/" (Beitr. zur Kenntn. des Russ. Reiches, third series, Vol. VII, p. 246).

stood, only once found, among numerous stone tools, a small piece of earthenware, which crumbled in his hands because it had not been fired, or at most only slightly, and which he thought was a train-oil lamp shaped by hand.

4. Op. Cit., P. 184.